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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,508	10/26/2001	Darryl Cynthia Moore	36968.262345 (BS01239)	3347
23552	7590	12/22/2003	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			EDWARDS, ANTHONY Q	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/046,508	MOORE ET AL.	
	Examiner	Art Unit	
	Anthony Q. Edwards	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6,9-18,21-29,31 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-18,21-29,31 and 33-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 9-18, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,168,427 to Clancy et al.

Referring to claims 1 and 12, Clancy et al. disclose an ergonomic apparatus (i.e., portable computer 12), comprising a main body (14), a keyboard housing (10) having a top surface, and a front edge closest to a user, a back edge farthest from the user and two side edges. See FIG. 5 and the corresponding specification. Clancy et al. also disclose a keyboard housing bottom surface (50) operationally and functionally connected to the main computer body (see FIG. 5B). Likewise, Clancy et al. disclose a positioning support (80a) functionally connected to the keyboard housing operable for extending and adjusting a slope of the keyboard housing, wherein the positioning support is at least one of a thumbscrew, a ratchet hinge, and a flap (see pawl member 80a of FIG. 9, and column 8, lines 11-19). The pawl member (80a) allows movement in steps or degrees about a pivot axis (114a), which by definition is a "ratchet hinge."

Clancy et al. does not expressly disclose that the keyboard housing is positioned at a plurality of angles between an open position and a closed position relative to the main body. Clancy et al. does, however, teach the keyboard housing being adjustable to varying angles desired by the user, including an open, intermediate, and closed position by way of notches 120a,

117a, and 118a, respectively (see Fig. 9). It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the ergonomic apparatus of Clancy et al. to include additional notches within the ratchet hinge (80a) for positioning the keyboard at a plurality of angles, between an open position and a closed position, since this would provide more than one typing position, which is needed for a variety of computer users.

Referring to claims 2 and 13, Clancy et al. disclose the ergonomic apparatus as claimed, further comprising one or more additional positioning supports (80a). See column 5, lines 14-22.

Referring to claims 3 and 14, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the top surface of the keyboard housing comprises a plurality of keys (38). See FIG. 1 and the corresponding specification.

Referring to claims 4 and 15, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the positioning support (80a) is attached at one end to at least one of: the top surface, the bottom surface, the front edge, the back edge, and the two side edges of the keyboard housing. See FIG. 5B, wherein the bottom surface (50) of the keyboard housing is attached to the positioning support (80).

Referring to claims 5 and 17, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the keyboard housing (10) defines an embedded compartment in the main body (14). See FIG. 5 and the corresponding specification.

Referring to claims 6 and 18, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the front edge of the keyboard housing is pivotally connected (42) to the main body. See FIG 5 and the corresponding specification.

Referring to claims 9 and 21, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the positioning support (80a) provides for continuous slope adjustment. See FIG. 9 and the corresponding specification.

Referring to claims 10 and 22, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the keyboard top surface is flush with the main body when the positioning support is retracted. See FIG. 5A and the corresponding specification.

Referring to claims 11 and 23, Clancy et al. disclose the ergonomic apparatus as claimed, wherein the main body comprises a laptop computer body. See FIG. 1 and the corresponding specification.

Referring to claim 16, Clancy et al. inherently disclose that the keyboard housing is standard equipment on a new laptop computer (See FIGS. 1-5).

Claims 24-29, 31, and 33-36 are rejected are rejected under 35 U.S.C. 103(a) as being unpatentable over Clancy et al., in view of U.S. Patent No. 6,104,604 to Anderson et al. Referring to claims 24, 25 and 36, Clancy et al. disclose an ergonomic keyboard housing as claimed, except for providing a process in which the keyboard housing is retrofitted into an otherwise standard laptop computer. Anderson et al. disclose a modular keyboard or retrofit module (200) for use as a keyboard in laptop and desktop computers (see FIGS. 1-4). It would have been obvious at the time the invention was made to one of ordinary skill in the art to retrofit the adjustable keyboard housing of Clancy et al. into a laptop computer, as taught by Anderson et al. to allow for repair and replacement of keyboard parts when necessary.

Referring to claim 26, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, wherein the

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underlying main body (112) comprises a laptop computer body (100). See FIG. 1 and the corresponding specification of Anderson et al.

Referring to claim 27, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, further comprising one or more additional positioning supports (80a). See column 5, lines 14-22 of Clancy et al.

Referring to claim 28, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, wherein the top surface of the keyboard housing comprises a plurality of keys (38). See FIG. 1 of Clancy et al.

Referring to claim 29, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, wherein the positioning support (80a) is attached at one end to at least one of: the top surface, the bottom surface, the front edge, the back edge, and the two side edges of the keyboard housing. See FIG. 5B of Clancy et al., wherein the bottom surface (50) of the keyboard housing is attached to the positioning support (80).

Referring to claims 31 and 33, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, except for the front edge of the keyboard housing being pivotally connected to the main body for continuous slope adjustment. It is notoriously old and well known in the art of computers having adjustable keyboard modules to pivotally connect the front edge of the keyboard to main body of the computer (see FIG. 4 and column 4, lines 60-68 of Clancy et al.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify the retrofit

keyboard housing of Clancy et al. in view of Anderson et al. to include a pivotally connected keyboard housing to allow for continuous change of angles relative to the computer user.

Referring to claim 34, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer with an adjustable keyboard housing as claimed, wherein the keyboard top surface is flush with the main body when the positioning support is retracted. See FIG. 5A and the corresponding specification of Clancy et al.

Referring to claim 35, Clancy et al. in view of Anderson et al. disclose a process for retrofitting a laptop computer, wherein the keyboard (200) is operationally connected to the main body by a wire 350. See FIGS. 2 and 3 of Anderson.

### *Response to Arguments*

Applicant's arguments filed November 24, 2003 have been fully considered but are not persuasive. Regarding applicant's contention that the prior art reference doesn't teach "the positioning support including at least a thumbscrew, a ratchet hinge, and a flap for extending and adjusting a slope of the keyboard housing," applicant is directed to Figure 9 of Clancy et al., which clearly discloses a ratchet hinge (80a) that (1) allows movement in steps or degrees, and (2) provides a pivot point about an axis (114a). See Figure 4 of Clancy et al., and the Examiner's rejection above.

Regarding the applicant's comment of Clancy et al. failing to function as designed with a positioning support comprising a ratchet hinge; the applicant is again directed to Figure 9, the corresponding specification, and to the Examiner's rejection above.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (7:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-1782.

aqe  
December 12, 2003

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800